ABSTRACT OF THE DISCLOSURE

Methods and apparatus for minimizing the effects of temperature drift in a magnetic susceptibility measurement instrument, such as an instrument used in pre-MRI screening for the presence of ferromagnetic foreign bodies. The magnetic field source and magnetic sensors can be combined into a single, rigid unit. The stability and sensitivity required in high quality magnetic susceptibility measurements can be achieved through symmetrical design of the source-sensor unit, minimization of thermal stresses, minimization of temperature variations, use of materials with low thermal expansion coefficients, or through appropriate combinations thereof. Use of patient eye movement where an eye is being screened, use of a water bag between the patient and the instrument, or use of telemedicine to facilitate performance of the necessary computations can also be incorporated.